

Coverage of Self-Monitoring of Blood Glucose (SMBG) Strips



Background

There are over four million people living with diagnosed diabetes in Canada. Diabetes is a chronic, progressive condition that affects the body's ability to regulate the amount of glucose (sugar) in the blood. It has no cure but can be managed through an individualized combination of lifestyle approaches and medications.

Self-monitoring of blood glucose (SMBG) is one way for people living with diabetes to measure and assess their glycemic range. A sample of blood, usually drawn from the fingertip, is applied to a test strip, and analyzed within seconds by a glucometer to provide a glucose reading. According to Diabetes Canada 2018 Clinical Practice Guidelines Monitoring Glycemic Control, SMBG is the "optimal way to confirm and appropriately treat hypoglycemia" (low blood sugar).¹ SMBG also provides data that can guide short- and long-term treatment modifications and increase empowerment and adherence to therapy.¹ Those with diabetes are advised to work with their care team to determine the frequency and pattern of testing that is right for them.

In Canada, SMBG test strips cost, on average, \$0.79 each.² Reimbursement from the government for test strips is provided through provincial drug plans and is based on prescribed course of treatment, age and income (see chart on page 2).

Challenges

Public coverage varies across the country. Some provincial plans reimburse the entire cost of test strips for people who are eligible, and others provide little to no reimbursement at all. Diabetes Canada has developed **minimum reimbursement recommendations for SMBG test strips based on an evidence review and the expertise of leading clinicians** across the country. New Brunswick, Prince Edward Island, and Newfoundland & Labrador lag behind the other provinces, as they do not meet the suggested minimum amounts for yearly coverage to support people's diabetes management.

Policy Implications

The out-of-pocket cost of SMBG test strips is very high for Canadians residing in provinces with limited coverage and/or co pays and deductibles, and for those who do not meet the eligibility criteria for their provincial plan. Private insurance can help offset the cost of test strips, but many Canadians do not have access to these plans.

Those who cannot afford test strips may be unable to monitor their blood glucose according to best practice recommendations. An absence of SMBG data can make it more difficult for people living with diabetes and their practitioners to properly identify and treat abnormal blood glucose levels, potentially leading to poorer outcomes. Unmanaged diabetes can have very serious short and long-term effects and represents a burden to individuals, families, and Canadian society at large. Significant and unnecessary costs are incurred from lost productivity and high health-care system use secondary to diabetes and its complications.

Recommendations

Diabetes Canada recommends that the provinces of Alberta, New Brunswick, Prince Edward Island, and Newfoundland & Labrador provide reimbursement for SMBG test **strips to meet Diabetes Canada's recommended yearly minimum amount**. Eligibility clauses should allow exceptions without limits to the test strips coverage policy on a case-by-case basis, where clinically indicated. In every jurisdiction, where they are a barrier to access, co-pays and deductibles on test strips should be limited or eliminated. People living with diabetes across Canada should also have access to the education and supports they require that allow them to test with purpose and effectively self-manage their conditions.

References

1. Cheng, A., Feig, D., Ho, J., and Siemens, R. (2021). [Diabetes Canada 2018 Clinical Practice Guidelines Blood Glucose Monitoring in Adults and Children with Diabetes: Update 2021](#). *Can J Diabetes*, 42(2021), 580-587.
2. Yeaw J, Lee WC, Wolden ML, et al. Cost of Self-Monitoring of Blood Glucose in Canada among Patients on an Insulin Regimen for Diabetes. *Diabetes Ther*. 2012; 3(7): 1-17.

	Diet/ Lifestyle	Oral Medicines with <i>Lower</i> Risk of hypo	Oral Medicines with <i>Higher</i> Risk of hypo	Insulin	Eligibility for Additional SMBG Test Strips
Diabetes Canada Recommended Yearly Minimum Amount	180	180	360	No limits; to be determined for each individual	Additional strips should be approved for clinically valid reasons on an individual basis
Yearly Maximum Amount by Province/Territory					
Yukon	As prescribed	As prescribed	As prescribed	As prescribed	No maximum
Northwest Territories	200	200	400	2,920	Prior approval must be obtained for quantities exceeding the maximum limit.
Nunavut	200	200	400	2,920	Prior approval must be obtained for quantities exceeding the maximum limit.
NIHB	200	200	400	2,920	Prior approval must be obtained for quantities exceeding the maximum limit.
British Columbia	200	200	400	3,000 (no CGM) 200 (with CGM)	Up to 100 more if approved by MD/HCP at DEC or MD/ endocrinologist if on insulin.
Alberta	200	200	400	3,000 (no CGM) 400 (with CGM)	No
Saskatchewan	200	200	400	3,650	<u>Up to 100 more if approved by MD/NP/pharmacist/CDE</u>
Manitoba	200	200	400	3,650 (no CGM) 1,600 (Medtronic CGM) 200 (Freestyle Libre FGM, Freestyle Libre 2 FGM, or Dexcom CGM)	<u>Up to 100 more if approved by MD/NP</u>
Ontario	200	200	400	3,000	More if approved by MD/pharmacist
Quebec	200	200	400	3,000	Up to 100 more if approved by HCP providing care
New Brunswick	50	100	As prescribed	As prescribed	Up to 2 requests of 50 more if approved by MD/NP (for diet/exercise & lower risk of hypo, else unlimited based on MD/NP recommendation).
Nova Scotia	As prescribed	As prescribed	As prescribed	As prescribed	No
Prince Edward Island	0	200	300	1,460 3,000*	No
Newfoundland & Labrador	51	102	102	Short acting: 2,550 Long-acting: 714	Up to 102 more for long-acting insulin users, 51 more for non-insulin users, unlimited for short acting insulin users if approved by HCP. Special Authorization required for people gestational diabetes or pregnant with Type 2 diabetes.

NOTES: Orange shading denotes inconsistency with Diabetes Canada recommendations for minimum SMBG test strips coverage.

*specific to pregnancy

ABBREVIATIONS: **hypo** = hypoglycemia; **DEC** = diabetes education centre; **MD** = medical doctor; **HCP** = health-care provider; **NP** = nurse practitioner; **CDE** = certified diabetes educator.

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